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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,304	10/10/2000	Wen-Shi Huang	00766	4350

7590 12/20/2001

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EXAMINER

ADDISON, KAREN B

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 12/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,304

Applicant(s)

HUANG ET AL.

Examiner

Karen B Addison

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3 and 5-7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Couture (5,753,991) in view of APA and further in view of Pletscher(1,566,693).
Couture discloses in fig.1 a structure for magnetizing a rotor magnet of a motor, comprising a stator (2) and a rotor (1), which is a magnet cylinder with a wavy curve surface wherein the wavy curve surface of the magnetic cylinder is one of an inner wavy curve surface (11) and wherein the magnetic cylinder includes a plurality of curve surfaces having arc centers. Couture does not disclose the stator having plurality of silicon steel sheets configured symmetrically and a stator having a magnet cylinder with a wavy curve.

APA discloses in fig.1 a structure for magnetizing a rotor magnet of a motor comprising a rotor (38) and a stator (22) wherein the stator comprises a plurality of silicon steel sheets (111) mounted inside the magnetic cylinder (121) for the purpose of changing the air gap between the stator and rotor.

Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of

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reducing manufacturing cost. Therefore it would have been obvious to one having ordinary skill in the art at the invention was made to employ the rotor of Couture with the stator of APA and modify the motor with the teaching of Pletscher for the purpose of reducing losses due to magnetic flux.

Claim 4-and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Couture in view of APA and Pletscher applied to claim 1-3 and 5-7 above, and further in view of Boyd (5,911,453).

As seen in paragraph number 2 above, Couture discloses rotor having a magnet cylinder with a wavy curve, APA discloses a stator comprising silicon sheets mounted to the magnetic cylinder and Pletscher teaches a stationary rotor. However, neither Couture, APA nor pletscher discloses stator/rotor having a plurality of symmetrical silicon steel sheets wound by a plurality of winding coils.

Boyd teaches in fig. 3 a motor comprising a rotor (36) and a stator (22) where in symmetrical lamination or asymmetrical can be used for the purpose of accommodating lamination slots receiving extra turns of deeper wiring. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotor of Couture with the stator of APA and modify the motor with the teaching of Pletscher and Boyd for the purpose reducing manufacturing cost and reducing losses due to magnetic flux.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA and Pletscher (1,566,693).

APA discloses in fig.1 a structure for magnetizing a rotor magnet of a motor comprising a rotor (38) which is a magnetic cylinder and a stator (22) having a plurality of silicon steel sheets (111) mounted inside the magnetic cylinder (121) purpose of changing the air gap between the stator and rotor. APA dose not disclose a stator /rotor wherein the rotor is made stationary and a rotor having lumpy edge.

Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of reducing manufacturing cost. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotor of APA with stator/rotor of Pletscher for the purpose of reducing manufacturing cost.

5. Claim 10 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Pletscher as applied to claim 9 and 12 above, and further in view of Arita (JP04304131).

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As seen in the above paragraph 4, APA disclose a structure for magnetizing a rotor which is a magnetic cylinder and a stator having silicon steel sheets and Pletscher discloses a stator/rotor wherein the rotor is made stationary. However, neither APA nor Pletscher disclose the cylinder having a lumpy edge.

Arita discloses in fig. 3 a structure for a magnetizing rotor motor comprising: a magnetic cylinder with a lumpy edge and a plurality of concave and convex surfaces for the purpose of increasing the holding power when the rotor is turned at high speed.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the rotor of APA with the teaching of Pletschers rotor/stator and modify the motor with the magnetic cylinder with the lumpy edge of Arita for the purpose of reducing cogging torque.

Response to Arguments

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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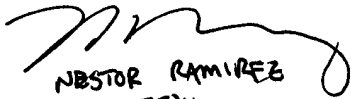
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


NESTOR RAMIREZ
SPE 2834

KBA
December 15, 2001